

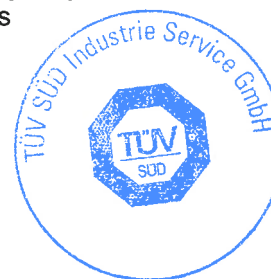


Type-examination certificate

Certificate no.:	ESV 761
Certification office:	TÜV SÜD Industrie Service GmbH Westendstr. 199 80686 München - Germany
Applicant/ certificate holder:	Chr. Mayr GmbH & Co. KG Eichenstr. 1 87665 Mauerstetten - Germany
Date of application:	2011-10-27
Manufacturer of the test sample:	Chr. Mayr GmbH & Co. KG Eichenstr. 1 87665 Mauerstetten - Germany
Product:	Braking element acting on the shaft of the traction sheave, as a part of the protection device against unintended car movement
Type:	896.1 __ . __, Größe 200, 300, 500, 800, 1300, 1800
Test laboratory:	TÜV SÜD Industrie Service GmbH Prüflaboratorium für Produkte der Fördertechnik Prüfbereich Aufzüge und Sicherheitsbauteile Westendstr. 199 80686 München - Germany
Date and number of the test report:	2011-11-25 ESV 761
Examination basis:	EN 81-1:1998 + A3:2009 (D), issue December 2009
Result:	The safety component conforms to the requirements of examination basis for the respective scope of application stated on page 1 - 2 of the annex to this type-examination certificate
Date of issue:	2011-11-28

Certification office for products of conveyor systems
Lifts and safety components

C. Rührmeyer
Christian Rührmeyer



**Annex to the type-examination certificate
no. ESV 761 dated 2011-11-28**

1 Scope of application

1.1 Nominal brake torques and response times with relation to a brand-new brake element

Name / Size	Minimum nominal brake torque* [Nm]	Maximum nominal brake torque* [Nm]	Maximum tripping rotary speed [rpm]	Maximum response times** [ms]		
				Without / with Overexcitation		
				t ₀	t ₅₀	t ₉₀
200	150		1000	80 / 80	120 / 130	170 / 190
200		300	1000	35 / 40	60 / 75	100 / 120
300	225		800	90 / 90	170 / 180	200 / 220
300		500	800	35 / 40	100 / 120	165 / 200
500	380		730	100 / 100	160 / 170	230 / 240
500		800	730	45 / 55	75 / 90	150 / 180
800	600		730	95 / 95	175 / 180	220 / 240
800		1200	730	35 / 40	75 / 90	140 / 170
1300	980		580	115 / 120	180 / 195	250 / 265
1300		1800	580	45 / 55	100 / 130	130 / 200
1800	1350		500	145 / 145	225 / 240	320 / 340
1800		2300	500	65 / 80	150 / 175	200 / 260

Interim values can be interpolated

Explanations:

- * **Nominal brake torque:** Brake torque assured for installation operation by the safety component manufacturer.
- ** **Response times:** t_x time difference between the drop of the braking power until establishing X% of the nominal brake torque, t₅₀ optionally calculated $t_{50} = (t_{10} + t_{90})/2$ or value taken from the examination recording

1.2 Assigned execution features

Type of powering / deactivation	Continuous current / continuous current end
Nominal air gap	0.45 – 0.55 mm
Damping elements	YES
Overexcitation	at double non-release voltage

2 Conditions

- 2.1 The above mentioned safety component represents only part of a protective equipment against unintended movement of the elevator car. Only in combination with a detecting and triggering component (two separate components also possible), which must be subjected to an own type examination, can the system created fulfil the requirements for a safety component in accordance with Annex F.8, EN 81-1:1998 + A3:2009 (D).
- 2.2 The safety component is used in combination with the brake device as part of the ascending car overspeed protection means.

Note: The English text is a translation of the German original. In case of any discrepancy, the German version is valid only.

- 2.3 The installer of a lift must create an examination instruction in accordance with D.2 p) of EN 81-1:1998 + A3:2009 (D) for lift(s) to fulfil the overall concept, add it to the lift documentation and provide any necessary tools or measuring devices, which allow a safe examination (e. g., with closed shaft doors).
- 2.4 The dimension configuration of the lift system must be designed as regards the brake torques in such a way that the permissible value of deceleration does not exceed $1 g_n$ in either direction. Excluded are decelerations, which are caused by an instantaneous roller safety gear up to a rated speed of the lift system of 0.63 m/s for instance.
- 2.5 The traction and its variance must be taken into account as regards its braking distance (transferable power / torque) and included in the calculation.
- 2.6 For installer of a lift, the compliance of the component with the type examined component and the assured nominal brake torques and response times must be confirmed in writing (e. g., type plate and/or supplement in the declaration of conformity).
- 2.7 According to the norm requirements, the brake element of the protective device must impact directly on the traction sheave or on the same shaft in the immediate vicinity of the traction sheave.

If the brake element does not impact in the immediate vicinity of the traction sheave on the same shaft, on which the traction sheave is also arranged, a deviation from the norm exists. A failure of the shaft in the area between the traction sheave and the brake element must be ruled out using corresponding construction designs and sufficient measurements. The manufacturer of the entire drive must prove the sufficient safety of the connection brake element – shaft and traction sheave – shaft as well as the shaft itself in calculations. This proof must be added to the technical documentation of the lift.

3 Remarks

- 3.1 The examination of other norm requirements, deterioration of the brake torques due to wear and tear and the operation-related change of the drive capability are not part of this type-examination.

This type-examination refers to the partial requirements for the protection device against unintended car movement only according to EN 81-1:1998 + A3:2009 (D), Section 9.11. If it is possible that several other safety devices operate at the same time, the values of deceleration according point 2.4 have to be fulfilled further on.
- 3.2 In order to provide identification, information about the basic design and functioning and to show the environmental conditions and connection requirements, drawing with the relevant latest identification from the associated EC type-examination certification ABV 761/X is to be enclosed with the type-examination certificate and the annex thereto.
- 3.3 The EC type-examination certificate may only be used in connection with the pertinent annex and the list of the authorized manufacturers (in accordance with the enclosure to the or indication in the relevant EC type-examination certificate no. ABV 761/X).